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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,614	08/21/2001	Joachim Manfred Bauer	DE920000064US1	6748

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IBM Corporation  
2455 South Road M/S P386  
Poughkeepsie, NY 12601

EXAMINER

SHORTLEDGE, THOMAS E

ART UNIT PAPER NUMBER

2654

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/933,614	BAUER, JOACHIM MANFRED	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thomas E Shortledge	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-16 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/22/2002</u> .   | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7 recites determining the codes of all uncased characters and in the first table, assigning to each of the determined codes of characters an exception handling character.

McKenna teaches a case mapping process using a trie structure, which can point to a conversion heap when an exception is found. However, McKenna does not teach finding the codes of all uncased characters.

Claim 8 recites a first chart listing all the codes of the characters to be translated and the codes of their mapping into different cases and a second chart containing a list of conditioned mappings. The first chart is used to create the first table by taking the code of all characters to be translated, determining the codes that have an entry into the

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second chart, and assigning the determined codes of characters an exception handling character.

McKenna teaches a trie structure and a conversion heap for handling exceptions. However, McKenna does not teach a first chart listing all the codes of the characters to be translated and the codes of their mapping into different cases.

Claim 9 recites a first chart listing all the codes of the characters to be translated and the codes of their mapping into different cases and a second chart containing a list of conditioned mappings. The second chart is used to create the second table by taking from the second chart all codes, mappings and conditions, determining all codes that have an entry into the second chart and adding the determined codes of characters and their mappings to the second table.

McKenna teaches a trie structure for mapping and a conversion heap for handling exceptions. However, McKenna does not teach a second table formed from the chart, by including the mapping and conditions determining all codes that have an entry into the second chart into the second table, nor a first chart listing all the codes of the characters to be translated and the codes of their mapping into different cases..

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by McKenna (5,787,452).

As to claims 1 and 15, McKenna teaches:

A method and a system for converting a first set of elements into a second set of elements, at least one element of the first having a context dependent relation to one or more elements of the second set, using a computer system providing a translation function for translating a block of elements of a first set into a block of elements of a first set into a block of elements of a second set in accordance with a table specifying for each element of first set either one particular elements of the second set or an exception handling element (a computer system performs transliteration on supplied data to convert a first character within the data to a mapped character of another script, col. 6, lines 46-50, and col. 9, lines 6-9, and lines 15-17), said function being further provided to interrupt processing whenever an element is processed marked by an exception handling element in said table, so that an exception handling function can be executed, (an exception processing when a result is too big to be stored within a trie structure, the trie structure entry points to a conversion heap, col. 12, lines 5-11);

splitting said first set of elements into a first subset consisting of such elements getting translated to one particular element of said second set and a second subset consisting of the remaining elements of said first sets (a conversion unit that receives

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local specific text from the user, and the data is broken down into characters to transfer the characters into Unicode or from one script to another, col. 8, lines 46-49, and col. 9, lines 1-7);

composing a first table ("trie") in which each element belonging to the first subset is assigned to the respective element of the second set and all elements of said second subset are assigned to an exception handling element (a "trie" structure representing a "stack of values" each with a set of attributes assigned to it which ties a character to an attribute (col. 10, lines 12-16), and an exception processing unit for processing the subset of data that can't be processed in the "trie" (col. 12, lines 7-12));

composing a second table (conversion heap) representing rules according to which an exception handling function translates said elements of said second subset (a conversion heap is used to relate the subset of information that the "trie" is too small to process, col. 12, lines 5-12);

determining a block of data to be converted, whereby said data is formed by elements of said first set (a conversion unit that receives local specific text from the user, and the data is broken down into characters to transfer the characters into Unicode or from one script to another, col. 8, lines 46-49, and col. 9, lines 1-7);

providing said first and second table and said determined block of data to said translation function (the data is supplied to the conversion unit, wherein the conversion unit there is a first set of data assigned to a trie and a second assigned to a conversion heap, col. 8, lines 46-49, col. 10, lines 12-15, and col. 12, lines 8-11);

processing said translation function (processing the transliteration of the data, col. 4-8).

As to claim 2, McKenna teaches the first set is formed by characters having a first property and said second set is formed by said characters having a second property (a first and second set having properties representing information to convert the characters from case to case, col. 8, lines 61-62, col. 10, lines 12-14, and col. 12, lines 7-10).

As to claim 3, McKenna teaches the first property and said second property are made up by lowercase, uppercase or titlecase, (the first and second sets are used to convert the character from case to case, col. 8, lines 61-62).

As to claim 4, McKenna teaches converting a first set of elements into a second set of elements is formed by a case conversion, (transformations include converting a character from lower case to upper case and vice versa, col. 8, lines 59-63).

As to claim 5, McKenna teaches said first set and said second set are formed by characters encoded in an universal character encoding standard used for representation of text for computer processing (code set includes using Unicode for transformations, col. 8 line 67, through col. 9, line 2).

As to claim 6, McKenna teaches said standard is the Unicode standard, (code set includes using Unicode for transformations, col. 8 line 67, through col. 9, line 2).

As to claim 10, McKenna teaches computer readable program means for causing a computer to perform the method of claim 1 (a computer software system is provided for directing the operation of the computer system, col. 6, lines 64-67).

As to claim 11, McKenna teaches an integrated circuit comprising hardware-implementing steps of the method of claim 1 (a computer system with a processor, col. 6, lines 46 and 53-54).

As to claim 12, McKenna teaches a device comprising the integrated circuit of claim 11 (a computer system with a processor, col. 6, lines 46 and 53-54).

As to claim 13, McKenna teaches a computer program for execution in a data processing system comprising computer program code portions for performing respective step of the method of claim 1 (a computer software system is provided for directing the operation of the computer system, col. 6, lines 64-67).

As to claim 14, McKenna teaches the computer program of claim 13 comprising a browser program (client/server environments are used, (col. 8, lines 28-30). It is



necessary that a client/server environment would include a browser program to navigate the server).

As to claim 16, McKenna teaches being used as an Internet server (a client/server environment, col. 8, lines 28-30).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Powell (6,157,905), Davis et al. (5,432,948), and Chong et al. (5,497,319).

Powell teaches finding the unknown language of text representing by a series of data values in accordance with a character set that associates character glyphs with particular data values.

Davis et al. teach transliterating an input text using a computer-implemented system.

Chong et al. teach using a dictionary device to translate input text in source language to output text in a target language.

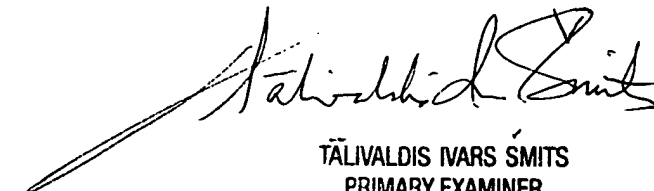
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E Shortledge whose telephone number is (703)605-1199. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703)306-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TS  
3/15/05



TĀLIVALDIS IVARS ŠMITS  
PRIMARY EXAMINER